

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1.(Currently Amended) A scanning display apparatus comprising:
  - (a) a display operable:
    - (i) to receive one or more driver signals and generate corresponding visual information for presentation on the display; and
    - (ii) to sense radiation received at the display and generate one or more sensing signals corresponding to a region proximate to the display; and
  - (b) computer hardware coupled to the display for generating the one or more driver signals for the display and for receiving the one or more sensing signals from the display, the computer hardware being operable to provide an interactive user interface at the display;

wherein the apparatus is configured to sense one or more objects when placed upon or positioned in proximity to the display and obscuring at least part of the visual information displayed on the display, and to adapt the visual information for display on

unobscured parts of the display which are unobscured by the one or more objects by moving the at least part of the visual information from obscured parts of the display to the unobscured parts of the display for displaying substantially all the visual information on the unobscured parts without changing a size of the visual information displayed on the display.

2.(Previously Presented) The apparatus according to claim 1, the apparatus being arranged to identify positions of the one or more objects placed in proximity of the display by way of ambient illumination to the apparatus obscured by the one or more objects.

3.(Previously Presented) The apparatus according to claim 1, wherein the display is operable to generate light radiation for illuminating the one or more objects placed in proximity to or on the display, and also for receiving at least part of the light radiation reflected from the one or more objects so as to enable the apparatus to assimilate a scanned image of the one or more objects.

4.(Previously Presented) The apparatus according to claim 1, wherein the computer hardware is operable to execute a first coarser scan to determine spatial location of the one or more objects on or in proximity of the display, and then execute a second finer scan to assimilate finer details of the one or more objects.

5.(Previously Presented) The apparatus according to claim 4, wherein the computer hardware is operable to present a representation of the one or more objects in a region of the display in which the one or more objects were placed during scanning as confirmation of successfully completed scanning.

Claims 6-7 (Canceled)

8.(Previously Presented) The apparatus according to claim 1, arranged to present the user interface in squeezed format when the unobscured parts of the display is insufficiently large to include all of the user interface.

9.(Previously Presented) The apparatus according to claim 8, wherein the user interface includes a scrolling feature for use in accessing squeezed parts of the user interface presented on the display.

10.(Previously Presented) The apparatus according to claim 1, wherein a minimum display size limit for the user interface is defined in the computer hardware, such that obscuring more of the display than defined by the display size limit causes the computer hardware to present at least part of the user interface in a squeezed format.

11.(Currently Amended) A scanning display apparatus comprising:

(a) a display operable:

(i) to receive one or more driver signals and generate corresponding visual information for presentation on the display; and

(ii) to sense radiation received at the display and generate one or more sensing signals corresponding to a region proximate to the display; and

(b) computer hardware coupled to the display for generating the one or more driver signals for the display and for receiving the one or more sensing signals from the display, the computer hardware being operable to provide an interactive user interface at the display;

the apparatus being arranged to present the user interface comprising a plurality of user interface features, the computer hardware being provided with a priority identifier for each of the features for determining which of the features to omit from presentation in the user interface in a situation where at least part of the display is obscured,

the apparatus being further arranged to move at least part of the visual information from the at least part of the display which is obscured to unobscured parts of the display without changing a size of the visual information displayed on the display.

12.(Previously Presented) The apparatus according to claim 1, wherein the computer hardware in conjunction with the display is operable to identify the one or more

objects in proximity to or in contact with the display and invoke one or more corresponding software applications for executing in the computer hardware in response to placement of the one or more objects.

13.(Previously Presented) The apparatus according to claim 12, wherein the one or more software applications are operable to generate one or more animated icons on the display which appear in surrounding spatial proximity to the one or more objects placed on the display, thereby providing a visual acknowledgement that the computer hardware has identified presence of the one or more objects.

14.(Previously Presented) The apparatus according to claim 1, wherein the display comprises one or more pixel devices capable of both:

(a) generating or transmitting illumination; and  
(b) sensing illuminating incident thereupon, the one or more pixel devices being fabricated using one or more of:

(c) liquid crystal display devices with associated thin-film-transistors configured to function as a light sensor; and

(d) polyLED technology.

15.(Previously Presented) The apparatus according to claim 1 adapted for use in

one or more of the following applications:

- (a) a contact type scanner;
- (b) webtables;
- (c) interactive tables;
- (d) automatic vending machines control panels;
- (e) security access panels;
- (f) interactive control panels in vehicles;
- (g) electronic design drawing boards;
- (h) interactive advertisement or information displays;
- (i) childrens' interactive toys and games;
- (j) teaching aids;
- (k) television monitors; and
- (l) computer monitors.

16.(Currently Amended) A method of operating a scanning display apparatus including:

- (a) a display, wherein the method includes acts of:
  - (i) receiving one or more driver signals at the display and generating corresponding visual information for presentation on the display; and
  - (ii) sensing radiation received at the display and generating one or more

corresponding sensing signals corresponding to a region proximate to the display; and

(b) in computer hardware coupled to the display, generating the one or more driver signals for the display and receiving the one or more sensing signals from the display, sensing one or more objects when placed upon or positioned in proximity to the display and obscuring at least part of the visual information displayed on the display, and adapting the visual information for display on unobscured parts of the display which are unobscured by the one or more objects by moving the at least part of the visual information from obscured parts of the display to the unobscured parts of the display for displaying substantially all the visual information on the unobscured parts without changing a size of the visual information displayed on the display, the computer hardware being operable to provide an interactive user interface at the display.

17.(Previously Presented) The method according to claim 16, further comprising an act of using pixel devices of the display to generate light radiation for illuminating the one or more objects placed in proximity to or on the display, and also for receiving at least part of the light radiation reflected from the one or more objects so as to enable the apparatus to assimilate a scanned image of the one or more objects.

18.(Previously Presented) The scanning display apparatus of claim 1, wherein the visual information is adapted so that all the visual information are displayed on the

unobscured parts.

19.(Previously Presented) The scanning display apparatus of claim 1, wherein the computer hardware is configured to form a halo surrounding a footprint of the one or more objects to provide an indication of sensing the one or more objects, and wherein the computer hardware is configured to remove the halo upon removal of the one or more objects from the proximity of the display.

20.(Previously Presented) The scanning display apparatus of claim 1, wherein the computer hardware is configured to perform a coarse scan using ambient illumination to identify positions of the one or more objects and to perform a fine scan, which is finer than the coarse scan, to identify details of the one or more objects using illumination generated by the display.

21.(Previously Presented) The scanning display apparatus of claim 1, wherein the computer hardware is configured to determine an identity of a user from detection of the one or more objects, and to present preferred visual information preferred by the user.

22.(Canceled)



23.(New) The apparatus of claim 21, wherein the computer hardware is further configured to present the preferred visual information preferred by the user for a duration the one or more objects is in proximity of the display.

24.(New) The apparatus of claim 21, wherein the computer hardware is further configured to determine an orientation of the one or more objects and to orient the preferred visual information based on the orientation of the one or more objects.

25.(New) The apparatus of claim 21, wherein the computer hardware is further configured to recognize presence of different users and display corresponding documents preferred by the different users based on identifying the one or more objects.

26.(New) The apparatus of claim 1, wherein the computer hardware is further configured to associate different users with the one or more objects so that placing an object upon or positioning the object in proximity to the display indicates which user of the different users is presently using the apparatus, the computer hardware being further configured to display a document preferred by the user in response to placing the object upon or positioning the object in proximity to the display.